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15					
16	UNITED STATES DISTRICT COURT				
10	UNITED STATES DISTRICT COURT				
17	NORTHERN DISTRICT OF CALIFORNIA,				
18	SAN FRANCISCO DIVISION				
10					
19	IN RE GOOGLE PLAY STORE	Case No. 3:21-md-02981-JD			
20	ANTITRUST LITIGATION				
20		DECLARATION OF DUY HO IN			
21	This Document Relates To:	SUPPORT OF GOOGLE'S			
<i>_</i> 1		SUPPLEMENTAL BRIEF IN			
22	Epic Games, Inc. v. Google LLC et al., Case	RESPONSE TO THE COURT'S FEBRUARY 27, 2023 MINUTE			
	No. 3:20-cv-05671-JD	ORDER			
23		ORDER			
	In re Google Play Consumer Antitrust				
24	Litigation, Case No. 3:20-cv-05761-JD	Judge: Hon. James Donato			
25	State of Utah et al. v. Google LLC et al., Case				
	No. 3:21-cv-05227-JD				
26					
25	Match Group, LLC et al. v. Google LLC et al.,				
27	Case No. 3:22-cv-02746-JD				
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28					

DECLARATION OF DUY HO

- I, Duy Ho, declare as follows:
- 1. I am a Project Manager on the Legal Discovery team at Google. I make this declaration based on personal knowledge. If called as a witness, I could testify competently to the facts stated herein.
- 2. My job-specific responsibilities include managing the technical aspects of discovery in connection with litigation matters. In connection with this matter, I have managed vendor operation of the document review database, overseen processes for producing large datasets, and assisted with analysis of review and production metrics.

Total Number of Chats Produced

- 3. In connection with this declaration and with assistance from others at Google, I analyzed Google's collection and production of chats that post-date the filing of Epic's complaint on August 13, 2020 ("post-Complaint chats"). This analysis includes post-Complaint chats produced by Google in the normal course of discovery (the "discovery production") and in connection with Google's supplemental production of chats in February 2023 (the "supplemental production").
- 4. As part of my job duties, I am familiar with how Google Chat messages are produced by Google in litigation. In particular, I am aware that Google uses the term "chat" to refer to a document containing multiple chat messages in a thread linked by temporal parameters, such that one "chat" produced by Google can contain numerous individual messages that span many pages over a period of time. The numbers in this declaration refer to the total number of "chat" documents produced by Google rather than the number of individual messages within each chat in the production.
- 5. In the discovery production, Google produced 502 post-Complaint chats from 21 post-Complaint custodians. Google also produced 260 attachments to these chats, resulting in a total production of 762 documents.
 - 6. For the supplemental production, Google collected 749,318 chats and 394,869

attachments from all 383 legal hold recipients, totaling 1,144,187 documents. Google then produced 52,271 chats and 161,709 attachments, totaling 213,980 documents.

7. I have analyzed how many documents within the supplemental production hit on the search strings negotiated by the parties related to substantive issues in the litigation. Based on that analysis, I conclude that 47,513 chats and 10,690 attachments hit on at least one of these search strings.

Chats and Documents Produced on Six Issues

- 8. I have also analyzed Google's production to determine the number of chats and other documents that Google has produced related to six particular issues. For this analysis, I ran search terms provided by Google's counsel against documents in Google's discovery production and supplemental production.
- 9. I have prepared a separate table, attached as **Exhibit A**, showing the total number of documents produced that hit on certain search terms for each of the six issues (Column 1). Column 2 of **Exhibit A** shows the number of post-Complaint supplemental production chats or chat attachments that hit on searches for each issue, as well as all six searches combined (all before pulling in families). Column 3 of **Exhibit A** shows the number of post-Complaint discovery production chats that hit on the search string for each identified issue, as well as for all six issues combined (all before pulling in families) for the 21 post-Complaint custodians. Column 4 of **Exhibit A** shows the total number of post-Complaint discovery production documents (including chats and attachments, as well as other documents like emails and slide decks) that hit on the search string for each identified issue, as well as for all six issues combined (all before pulling in families). Column 5 of **Exhibit A** shows the total number of discovery production documents (both pre- and post-Complaint, including chats and attachments, as well as other documents like emails and slide decks) that hit on the search string for each identified issue, as well as on all six issues combined (all before pulling in families).
- 10. I also prepared a separate table, attached as **Exhibit B**, that lists the search terms used for each issue.

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I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed on this 14th day of March, 2023, in California. Duy Ho

EXHIBIT A

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Exhibit A – Declaration of Duy Ho

	Supplemental Production	Discovery Production		
Issue	Number of chats or attachments from the 383 legal hold recipients that hit on issue search terms (not including families)	on issue search	Complaint documents previously	Number of total documents previously produced that hit on issue search terms (not including families)
Hug	1,710	130	7,130	37,417
RSA 3.0	504	0	1,196	52,992
Magical Bridge	10	10	328	1,475
Basecamp	30	3	663	2,763
Runway	393	32	4,886	11,015
Everest	1,086	14	4,518	10,156
All 6 issues	3,469	176	16,132	110,904

EXHIBIT B

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Exhibit B – Declaration of Duy Ho

Issue	Search term
Hug	Hug OR AVP OR GVP OR "games velocity" OR "apps velocity"
RSA 3.0	("premier tier" OR "RSA 3.0" OR "RSA3" OR agreement*) w/30 (OEM* OR "Original Equipment Manufacturer" OR "Original Equipment Manufacturers" OR OnePlus OR "ZTE" OR "LG" OR Nokia OR HTC OR Huawei OR Sony OR Samsung OR Galaxy OR Lenovo OR Acer OR Oppo OR Vivo OR Xiaomi OR Asus OR Microsoft OR Motorola OR installer OR carrier* OR "AT&T" OR Verizon OR "T-Mobile" OR Sprint OR Telefonica)
Magical Bridge	"Magical Bridge" OR "Project MB"
Runway	Runway
Basecamp	Basecamp
Everest	(((Korea* OR "KR") w/5 (law OR legis*)) AND "Play" AND (("alternative" w/5 "billing") OR "service fee")) OR ("Everest") OR (("Media" w/3 experience) w/10 (low* OR decreas* OR chang* OR drop* OR reduc* OR simplify OR simple)) OR ("Media Experience Program" OR "MEP") OR ("UCB" OR "user choice billing") OR (("Spotify" OR "pilot") AND (("alternative" OR "choice") w/5 "billing"))